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5. (Previously presented) The thermal barrier coating of claim 4 wherein at least the portion thereof comprising said stabilized zirconia coating comprises about 58.1 to about 59.7 weight % hafnia, about 5.3 to about 8 weight % yttria, and about 34 to about 35 weight % zirconia.

6. (Previously presented) The thermal barrier coating of claim 5 wherein at least the portion thereof comprising said stabilized zirconia coating exhibits thermal conductivity of less than 1.5 W/m-K.

7. (Currently Amended) An article comprising a metallic substrate and a ceramic coating on a surface of said substrate, said ceramic coating having at least a portion comprising a stabilized zirconia coating including yttria and hafnia in an amount of at least about 15 weight % effective to reduce thermal conductivity of the stabilized zirconia coating as compared to a similar stabilized zirconia coating having an impurity amount of hafnia.

8. (Previously presented) The article of claim 7 wherein hafnia is present in at least the portion of the ceramic coating comprising the stabilized zirconia coating in amount of at least about 15 weight % to about 64 weight % of the coating.

9. (Previously presented) The article of claim 8 wherein at least the portion of the ceramic coating comprising the stabilized zirconia coating comprises about 15.8 to about 63.4 weight % hafnia, about 2.0 to about 36.6 weight % yttria, and balance zirconia.

10. (Previously presented) The article of claim 9 wherein at least the portion of the ceramic coating comprising the stabilized zirconia coating comprises about 34.3 to about 61.6 weight % hafnia, about 5.3 to about 11.8 weight % yttria, and balance zirconia.

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11. (Previously presented) The article of claim 10 wherein at least the portion of the ceramic coating comprising the stabilized zirconia coating comprises about 58.1 to about 59.7 weight % hafnia, about 5.3 to about 8 weight % yttria, and about 34 to about 35 weight % zirconia.

12. (Previously presented) The article of claim 11 wherein at least the portion of the ceramic coating comprising the stabilized zirconia coating exhibits a thermal conductivity of less than 1.5 W/m-K.

13. (Original) The article of claim 7 wherein said substrate comprises a superalloy gas turbine engine blade or vane.

14. (Previously presented) The article of claim 7 further including a bondcoat between said ceramic coating and said substrate.

15. (Previously presented) A method of protecting a surface of a metallic substrate, comprising:

depositing a coating comprising zirconia, yttria and hafnia on the surface wherein the hafnia is present in the coating in an amount of at least about 15 weight % effective to reduce thermal conductivity of the coating deposited on the substrate as compared to a similar coating having an impurity amount of hafnia.

16. (Original) The method of claim 15 wherein hafnia is present in the coating in amount of at least about 15 weight % to about 64 weight % of the coating.

17. (Original) The method of claim 16 wherein the coating comprises about 15.8 to about 63.4 weight % hafnia, about 2.0 to about 36.6 weight % yttria, and balance zirconia.

18. (Original) The method of claim 17 wherein the coating comprises about 34.3 to about 61.6 weight % hafnia, about 5.3 to about 11.8 weight % yttria, and balance zirconia.

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19. (Previously presented) The method of claim 18 wherein the coating comprises about 58.1 to about 59.7 weight % hafnia, about 5.3 to about 8 weight % yttria, and about 34 to about 35 weight % zirconia.

20. (Currently amended) A coated article comprising a substrate selected from the group consisting of a nickel based superalloy and cobalt based superalloy and a ceramic thermal barrier coating on the substrate, ~~said coating and comprising stabilized~~ zirconia, ~~yttria~~, and hafnia wherein hafnia is present in an amount of at least about 15 weight % effective to reduce thermal conductivity of the thermal barrier coating as compared to a similar ~~stabilized zirconia thermal barrier~~ coating having an impurity amount of hafnia therein.

21. (Currently amended) The coated article of claim 20 wherein the thermal barrier coating comprises about 15.8 to about 63.4 weight % hafnia, about 2.0 to about 36.6 weight % yttria, and balance zirconia.

22. (Currently amended) The coated article of claim 21 wherein the thermal barrier coating comprises about 34.3 to about 61.6 weight % hafnia, about 5.3 to about 11.8 weight % yttria, and balance zirconia.

23. (Currently amended) The coated article of claim 22 wherein the thermal barrier coating comprises about 58.1 to about 59.7 weight % hafnia, about 5.3 to about 8 weight % yttria, and about 34 to about 35 weight % zirconia.

24. (Currently amended) A ceramic coating comprising ~~stabilized~~ zirconia, ~~yttria~~, and hafnia wherein hafnia is present in an amount of at least about 15 weight % of the coating effective to reduce thermal conductivity of the ceramic coating as compared to a similar ceramic coating having an impurity amount of hafnia therein.

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25. (Previously presented) The ceramic coating of claim 24 comprising about 15.8 to about 63.4 weight % hafnia, about 2.0 to about 36.6 weight % yttria, and balance zirconia.

26. (Previously presented) The ceramic coating of claim 25 comprising about 34.3 to about 61.6 weight % hafnia, about 5.3 to about 11.8 weight % yttria, and balance zirconia.

27. (Previously presented) The ceramic coating of claim 26 comprising about 58.1 to about 59.7 weight % hafnia, about 5.3 to about 8 weight % yttria, and about 34 to about 35 weight % zirconia.